BYK-Gardner GmbH

4727P26

a

Abstract of the Disclosure

The present invention relates to a device and method for making quantified determinations of the quality of surfaces and wherein the device comprises an optical system with a first optical means and a second optical means as well as a control and evaluation means and an output (display) means. Said first optical means comprises an illuminating means having at least one LED as its light source and serves the function of illuminating the measurement surface at a predetermined angle. Said second optical means is likewise directed at a predetermined angle to the measurement surface and receives the reflected light. A photo sensor of said second optical means emits an electrical measurement signal which is characteristic of said reflected light.

The light emitted from the illuminating means is configured such that its spectral characteristic comprises blue, green and red spectral components in the visible light spectrum. A filter means is arranged in the path of radiation between the light source and the photo sensor and which changes the spectral characteristics of the incident light so as to approach a predetermined spectral distribution. The control and evaluation means control the measurement sequence and evaluate the reflected light, deriving therefrom at least one parameter which is characteristic of the surface.